night and day, when it froze ſo hard, that the Sap congealed as faſt as it iſſued out. The Cold remitting, the *Birches* bled afreſh, the *Sycamores* abated very much, and the Walnut-trees quite ceaſed.

12. We pierced two *Sycamores* on the *North* and *Southſides*, and both of them from equall inciſions bled a greaſt deale faſter from the *North*-ſides, than the *South*, which is conſonant to the preceding Experiment.

13. We ſet ſeveral *Willows* with the wrong ends downward, and cut off ſeveral *Bryars*, that had taken root at the ſmall ends. This 29th of *May* the *Willows* have ſhot out Branches neare two foot long; and from the top of the Sets, which were a yard high, the *Bryars* have alſo grown backwards from that part, which we left remaining to the roots at the leſſer ends; they have great leaves and are ready to flower.

An Extract of a Letter
Lately Written by Dr Edward Browne *to the Publiſher, concerning* Damps *in the Mines of* Hungary *and their Effects.*

SIr, having been lately in the Copper, Silver, and Gold-mines in *Hungary*, I hope ere long to give you a particular account thereof; preſenting this in the mean time concerning *Damps* in theſe Mines; whereof I underſtand, that they happen in moſt of them, that are deep; and that they happen not only in the *Cuniculi* or direct paſſages, where they walk on Horizontally (by theſe Mine-men call'd *Stollen*) but alſo in the *Putei* or Perpendicular Cutts or Deſcents (term'd *Schachts* by the ſame.) They are met with not only in places, where the Earth is full of Clay or the like ſubſtances, but alſo where it is Rocky: and one place they ſhew'd me in the Copper-mine at *Hern-groundt*, where there had been a very pernicious damp, and yet the Rock ſo hard, that it could not be broken by their Inſtruments; but the deſcent was all made by the means of Gun-powder, ram'd into long round holes in the Rock, and ſo blowne up. Another place they ſhow'd me, where there is ſometimes a damp, and ſometimes clear weather. When there is much water in the

the Mine, ſo as to ſtop up the lower part of this paſſage, then the damp becomes diſcoverable, and commonly ſtrong. I procured one to enter it, till his Lamp went out 4. or 5. times, in the ſame manner as at *Grotto del Cane* in Italy.

Damps are not all of the ſame force, but ſome weaker, ſome ſtronger; ſome ſuffocate in a ſmall ſpace of time, others only render the Workemen faint, with no further hurt, except they continue long in the place. The Miners (who think themſelves no Workmen, if they be not able to cure a Damp, or to cure the bad Weather, or make the Weather, as they term it) performe it by perflation, by letting the Aire in and out, and cauſing, as 'twere, a Circulation of it. In the Mine at *Herrn-groundt* they did cure a bad Damp by a great paire of Bellows, which were blown continually for many days. The ordinary remedy is by long Tubes, through which the Air continually paſſing, they are able to digg ſtreight on for a long way without impediment in breathing. For ſome *Cuniculi* are 500. fathoms long; which will not ſeeme ſtrange to any one that ſhall ſee the Mapp of the Copper-mine at *Herrn-groundt* or the Gold-mine at *Chremnitz*. And in the Silver-Trinity-mine by *Schemnitz*, I paſſ'd quite under a great Hill, and came out on the other ſide. At *Windſchach*-mine by *Schemnitz* they ſhow'd me the place, where 5. men and a Gentleman of quality were loſt; for which reaſon they have now plac'd a Tube there. The like they place over all doores, and over all ways, where they digg right on for a great ſpace, and have no paſſage through. At *Chremnitz* they told me, that 28. men had been killed at one time in 4. *Cuniculi*, 7. in each; and in the ſinking of *Leopold's*-pitt, which is 150. fathoms deep, they were much troubled with damps, which they remedied in this manner.

They fixed a Tube to the ſide of the *Schacht* or *Pitt*, from the top to the bottom; and that not proving ſufficient, they forc'd down a broad flat board, which cover'd or ſtopp'd the Pitt, or couched very near the ſides of it, on all ſides but where the Tube was; and ſo forc'd out all the Air in the pitt through the Tube: which work they were forc'd often to repeat. And now they having divers other paſſages into it, the Air is good and ſufficient; and I was drawn up through it without the leaſt trouble in breathing.

But

But beſides this miſchief from poiſonous Exhalations, Stagnation of the Air, or Water impregnated with minerall ſpirits, they ſometimes periſh by other ways. For there being in theſe Mines an incredible maſs of wood to ſupport the Pitts and the Horizontal paſſages, (the *Putei* and *Cuniculi*) in all places but where 'tis Rocky, men are ſometimes deſtroy'd by the wood ſet on fire. And in the Gold-mine at *Chremnitz* the wood was once ſet on fire by the careleſneſs of a boy, and 50 Miners ſmothered thereby; who were all taken out but one, that was afterwards found to be diſſolv'd by the Vitriol water, nothing eſcaping either of fleſh or bones but only ſome of his cloaths. I am *&c.*

Vienna April. 20 1669.

A Chronological Accompt of the ſeveral Incendium's *or Fires of Mount* Ætna.

THe preſent Fire of *Ætna*, (whereof there was lately a Relation printed here in the *Savoy*) will make it appear not unſeaſonable to reflect back upon former Ages, and to collect from Hiſtory the ſeverall Eruptions hapned there, together with the times of them, and ſome obſervations recorded by Authors concerning the ſame.

To paſs by what is related by *Beroſus*, *Orpheus* and other leſs credible Authors, about the Eruptions of this Mountain, both at the time of the ingreſs of the *Ionian* Colonies into Sicily, and that of the *Argonautes* (which latter was in the 12th Age before the Chriſtian account;) we ſhall firſt take notice of that, which happen'd at the time of the Expedition of *Æneas*, who being terrified by the fire of this then burning Mountain, left that Iſland; whereof *Virgil* l. 3. *Æneid.* gives this notable deſcription;

Ignarique viæ, Cyclopum allabimur oris,
Portus ab acceſſu ventorum immotus et ingens,
Ipſe ſed horrificis juxta tonat Ætna ruinis,
Interdumque etiam prorumpit ad æthera nubem
Turbine fumantem picco et candente favillâ.
Attollitque globos flammarum, et ſidera lambit.

Interdum